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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1 – 15 Cancelled.

16. (Currently Amended) In a computing apparatus executing a computer aided design (CAD) application, a method ~~for manipulating a computer design etc. of operation by a computer aided design (CAD) application~~, the method comprising:

- receiving a user input to perform an operation on a CAD design;
- detecting a failure during performance of the operation;
- generating a failure indication upon detecting the failure; and
- providing information to a user to facilitate the user in determining a location of a cause of the failure within the CAD design and information about how to recover from the failure.

17. (Previously Presented) The method of claim 16, wherein said detecting a failure comprises detecting an occurrence of one or more software events that are to result in at least one of an error or a warning.

18. (Previously Presented) The method of claim 16, wherein comprises generating and displaying a user interface having a title indicative of the operation during which operation, the failure was encountered.

19. (Previously Presented) The method of claim 16, wherein providing information comprises generating and displaying one or more expandable error messages.

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20. (Previously Presented) The method of claim 16, wherein providing information comprises generating and displaying one or more error messages in a hierarchical manner.
21. (Previously Presented) The method of claim 16, wherein providing information comprises facilitating receiving an indication of at least one of editing, canceling, and accepting the failure.
22. (Previously Presented) The method of claim 16, wherein providing information comprises generating and displaying a message having a suggestion for solving the failure.
23. (Previously Presented) The method of claim 16, wherein providing information comprises visually indicating a portion of the CAD design associated with the failure.
24. (Previously Presented) The method of claim 23, wherein visually indicating comprises highlighting the portion of the CAD design associated with the failure.
25. (Previously Presented) The method of claim 23, wherein visually indicating comprises generating and displaying a graphical representation of a light bulb.
26. (Currently Amended) An apparatus comprising:  
a storage medium having stored therein a plurality of programming instructions, which when executed, the instructions cause the apparatus to:  
receive a user input to perform an operation on a CAD design;  
detect a failure during performance of the operation;  
generate a failure indication upon detecting the failure[:]; and  
provide information to a user to facilitate the user in determining a location of a cause of the failure within the CAD design and information about how to recover from the failure.

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27. (Previously Presented) The apparatus of claim 26, wherein said programming instructions, which when executed, cause the apparatus to detect an occurrence of one or more software events that are to result in at least one of an error or a warning.

28. (Previously Presented) The apparatus of claim 26, wherein said programming instructions, which when executed, cause the apparatus to generate and display a user interface having a title indicative of the operation during which operation, the failure was encountered.

29. (Previously Presented) The apparatus of claim 26, wherein said programming instructions, which when executed, cause the apparatus to generate and display one or more expandable error messages.

30. (Previously Presented) The apparatus of claim 26, wherein said programming instructions, which when executed, cause the apparatus to generate and display one or more error messages in a hierarchical manner.

31. (Previously Presented) The apparatus of claim 26, wherein said programming instructions, which when executed, cause the apparatus to facilitate receiving an indication of at least one of editing, canceling, or accepting the failure.

32. (Previously Presented) The apparatus of claim 26, wherein said programming instructions, which when executed, cause the apparatus to generate and display a message having a suggestion for solving the failure.

33. (Previously Presented) The apparatus of claim 26, wherein said programming instructions, which when executed, cause the apparatus to visually indicate a portion of the user design associated with the failure.

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34. (Previously Presented) The apparatus of claim 33, wherein said programming instructions, which when executed, cause the apparatus to highlight the portion of the user design associated with the failure.

35. (Previously Presented) The apparatus of claim 33, wherein said programming instructions, which when executed, cause the apparatus to generate and display a graphical representation of a light bulb.

36. (Currently Amended) An article of manufacture having stored therein a plurality of programming instructions, which when executed, the instructions cause a machine to:

- receive a user input to perform an operation on a CAD design;
- detect a failure during performance of the operation;
- generate a failure indication upon detecting the failure[:]; and
- provide information to a user to facilitate the user in determining a location of a cause of the failure within the CAD design and information about how to recover from the failure.

37. (Previously Presented) The article of manufacture of claim 36, wherein said programming instructions, which when executed, cause the machine to detect an occurrence of one or more software events that are to result in at least one of an error and a warning.

38. (Previously Presented) The article of manufacture of claim 36, wherein said programming instructions, which when executed, cause the machine to generate and display a user interface having a title indicative of the operation during which operation, the failure was encountered.

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39. (Previously Presented) The article of manufacture of claim 36, wherein said programming instructions, which when executed, cause the machine to generate and display one or more expandable error messages.

40. (Previously Presented) The article of manufacture of claim 36, wherein said programming instructions, which when executed, cause the machine to generate and display one or more error messages in a hierarchical manner.

41. (Previously Presented) The article of manufacture of claim 36, wherein said programming instructions, which when executed, cause the machine to facilitate receiving an indication of at least one of editing, canceling, or accepting the failure.

42. (Previously Presented) The article of manufacture of claim 36, wherein said programming instructions, which when executed, cause the machine to generate and display a message having a suggestion for solving the failure.

43. (Previously Presented) The article of manufacture of claim 36, wherein said programming instructions, which when executed, cause the machine to visually indicate a portion of the user design associated with the failure.

44. (Previously Presented) The article of manufacture of claim 43, wherein said programming instructions, which when executed, cause the machine to highlight the portion of the user design associated with the failure.

45. (Previously Presented) The article of manufacture of claim 43, wherein said programming instructions, which when executed, cause the machine to generate and display a graphical representation of a light bulb.

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46. (Previously Presented) A method comprising:  
recognizing an occurrence of one or more software events that result in at least one of an error or a warning;  
storing an indication of the error or warning in an error/warning storage structure; and  
returning a result from a function call that indicates that the error/warning indication has been stored in the error/warning storage structure, wherein subsequent function call returns are not required to store error/warning indications resulting from the event causing the stored indication.
47. (Previously Presented) The method of claim 46, wherein storing an indication of the error or warning includes a thin wrapper class structure.
48. (Previously Presented) The method of claim 46, further comprising:  
displaying a general message based on one or more error/warning indications stored in the error/warning storage structure.
49. (Previously Presented) The method of claim 48, further comprising:  
expanding the general message to provide additional error/warning information in response to user input.
50. (Previously Presented) The method of claim 46, further comprising:  
indicating a design element causing the error or warning.
51. (Previously Presented) The method of claim 46, wherein the function call is for a first function, the method further comprising:  
adding information to the error/warning indication stored in the error/warning storage structure, the information reported from a second function that called the first function.

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52. (Previously Presented) A machine-readable medium having stored thereon sequences of instructions, which when executed by a processor cause the processor to:

recognize an occurrence of one or more software events that result in one of an error or a warning;

store an indication of the error or warning in an error/warning storage structure; and

return a result from a function call that indicates that the error/warning indication has been stored in the error/warning storage structure, wherein subsequent function call returns are not required to store additional error/warning indications resulting from the event causing the stored error/warning indication.

53. (Previously Presented) The machine-readable medium of claim 52, wherein the sequences of instructions that cause the processor to store an indication of the error or warning further comprise a sequence of instructions including a thin wrapper class structure constructor.

54. (Previously Presented) The machine-readable medium of claim 52, further comprising sequences of instructions, which when executed by the processor cause the processor to:

display a general message based on one or more error/warning indications stored in the error/warning storage structure.

55. (Previously Presented) The machine-readable medium of claim 54, wherein the general message is expanded to provide additional error/warning information in response to user input.

56. (Previously Presented) The machine-readable medium of claim 52, further comprising sequences of instructions that cause the processor to indicate a design element causing the error or warning.

57. (Previously Presented) The machine-readable medium of claim 52, wherein the function call is for a first function, further comprising sequences of instructions that cause the processor

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to:

add information to the error/warning indication stored in the error/warning storage structure, the information reported from a second function that called the first function.

58. (Previously Presented) An apparatus comprising:

means for recognizing the occurrence of one or more software events that result in one of an error or a warning;

means for storing an indication of the error or warning, in an error/warning storage structure; and

means for returning a result from a function call that indicates that the error/warning indication has been stored in the error/warning storage structure, wherein subsequent function call returns are not required to store additional error/warning indications in the error/warning storage structure.

59. (Previously Presented) The apparatus of claim 58, wherein the means for storing an indication of the error or warning comprise means for constructing a thin wrapper class structure.

60. (Previously Presented) The apparatus of claim 58, further comprising means for displaying a general message based on one or more error/warning indications stored in the error/warning storage structure.

61. (Previously Presented) The apparatus of claim 60, wherein the general message is expanded to provide additional error/warning information in response to user input.

62. (Previously Presented) The apparatus of claim 58, further comprising means for indicating a design element causing the error/warning.



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63. (Previously Presented) The apparatus of claim 58, wherein the function call is for a first function, the apparatus further comprising:

means for adding information to the error/warning indication stored in the error/warning storage structure, the information reported from a second function that called the first function.

64. (Previously Presented) A method comprising:

detecting at least one of an error or a warning in a first function;

reporting an error/warning message from the first function to an error/warning storage structure;

storing the error/warning message in the error/warning storage structure;

adding information to the error/warning message stored in the error/warning storage structure, the information reported from a second function that called the first function; and

returning a result from a function call for the second function indicating that the error/warning message is stored in the error/warning storage structure.

65. (Previously Presented) The method of claim 64, wherein the second function calls the first function and the first function returns a result to the second function indicating that the error/warning message is stored in the error/warning storage structure.

66. (Previously Presented) A computer program product, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

detect at least one of an error or a warning in a first function;

report an error/warning message from the first function to an error/warning storage structure;

store the error/warning message in the error/warning storage structure;

add information to the error/warning message stored in the error/warning storage structure, the information reported from a second function that called the first function; and

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return a result from a function call for the second function indicating that the error/warning message is stored in the error/warning storage structure.

67. (Previously Presented) The computer program product of claim 66, wherein the second function calls the first function and the first function returns a result to the second function indicating that the error/warning message is stored in the error/warning storage structure.